

WHAT IS CLAIMED IS:

1. A noise control device for a steel door installed on a steel door and a casing, said device comprising:

5 A buffer fixed on the casing, shaped post-like, consisting of a hollow cylinder, a fitting member fixed on an outer surface of said cylinder, a round lower sponge of some elasticity contained in said cylinder, a coil spring of good elasticity positioned on said lower
10 sponge in said cylinder, a rod located in said coil spring having a pair of opposite studs on its outer surface and contacting an upper end of said coil spring, a colliding member fixed around an outer end of said rod, an annular upper sponge of some elasticity located to contact an
15 upper end of said studs and having a center hole for said rod to pass through, an annular cap fitting firmly around an outer end of said cylinder and having a center hole for said rod to pass through and sealing said lower sponge, said coil spring and said rod in said cylinder:

20 A stopping member fixed on the steel door and facing said buffer fixed on the casing, having two stopping layers and an intermediate soft layer sandwiched between said two stopping layers, an annular groove formed a central area of an upper one of said
25 stopping layers and the intermediate layer facing said rod of said buffer:

 A shock-absorbing member fixed on the casing,

consisting of two sound-absorbing layers and a tough layer, said tough layer wrapped by said two sound-absorbing layers: and

5 A projecting member attached on an outer side of a deadbolt groove of the casing, having a vertical wall portion and a projecting portion extending sidewise and outward from an intermediate section of said wall portion to face the deadbolt of a lock fixed on the steel door.

10 2. The noise control device for a steel door as claimed in Claim 1, wherein said buffer is fixed on a proper location of the casing.

15 3. The noise control device for a steel door as claimed in Claim 1, wherein said buffer is fixed on a proper location of the steel door.

4. The noise control device for a steel door as claimed in Claim 1, wherein said buffer is fixed invisible in the casing.

20 5. The noise control device for a steel door as claimed in Claim 1, wherein said buffer is fixed invisible in the steel door.

25 6. The noise control device for a steel door as claimed in Claim 1, wherein said coil spring of said buffer is substituted by something activated by oil pressure.

7. The noise control device for a steel door as claimed in Claim 2, wherein said projecting portion is a

ridge-shaped projection.